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EXAMINER

RYCKMAN, MELISSA K

ART UNIT

PAPER NUMBER

3734

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/764,102

Applicant(s)

DOUGLAS ET AL.

Examiner

Melissa Ryckman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 24-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 24-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/23/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to arguments and claims filed on 3/23/07, claims 1-20 and 24-28 are pending, claims 21-23 have been cancelled. The examiner appreciates the correction in the specification and the inclusion of the IDS.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,3, 5, 9-11 and 24-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Marucci (U.S. Patent No. 6,582,451).

Regarding claim 1 Marucci et al. discloses a surgical clamp comprising a clamp head (11), a first (12) and second jaw (12) each mounted to the clamp head, an operative mechanism (11) coupled to the proximal end of at least one of the first jaw and the second jaw, and a structure connected to the operative mechanism for imparting a parallel opening movement of the first and second jaw (Fig. 1b), the jaws are in a scissor like opening position (Fig. 2b), and a position where the jaws are spaced apart even further (compare Fig. 1b to Fig. 1g and col. 4 ll. 53,54). The first (12) and second jaw (12) define a plane that is parallel (plane is the space between 15a and 15b) to the first and second jaw and located therebetween when the first and second jaws are in the first (Fig. 1g) and second (Fig. 1e) position. The first and second jaws

rotate (Fig. 1e and 1g) relative to the plane. The first and second jaw are spaced apart more at the distal end than the proximal end (Fig. 3g, the ends of 15b are rounded, there is a space between the two jaws, this is spaced apart more then at the proximal end of the jaw which is near 15a in Fig. 3g).

3. Regarding claim 3 Marucci et al. discloses a clamp wherein the first and second jaws includes a plate structure at the proximal end (surface between 18a and 19c on Fig. 1a, and the surface between 18b and 19d on Fig. 1a), the plate structure having elongated slots formed therein (18a and 18b); the slots extend in parallel spaced relationships (Fig. 1b); and the operative mechanism comprises a linkage arrangement (24a and 24b) having first (27a) and second guide pins (27b) extending into respectively each of the elongate slots (18a and 18b), whereby the actuating structure imparts opening movement to the linkage arrangement by slidably displacing the guide pins (Fig. 1g) in the slots to form the parallel spacing between the jaws.

4. Regarding claim 5 Marucci et al. discloses a clamp wherein the linkage arrangement comprise a plurality of closeable (24a, 24b, 25a, 25b) and openable parallel scissors links (Fig. 1b).

5. Regarding claim 9 Marucci et al. discloses a clamp wherein elastometric cushioning means are provided on the facing surfaces of the first and second elongated jaws (col. 15 ll. 47-50).

6. Regarding claim 10 Marucci et al. discloses a clamp wherein the first and second jaws are curved along the axial lengths thereof to accommodate the curvature of body vessels (Fig. 5b).

7. Regarding claim 11 Marucci et al. discloses a clamp wherein the actuator structure comprises a cable (14) actuatable by extending through an endoscopic or laparoscopic device (Fig. 6) .

Regarding claim 24 Marucci et al. discloses a method of occluding a body vessel comprising a clamp head (11), a first (12) and second jaw (12) each mounted to the clamp head, an operative mechanism (11) coupled to the proximal end of at least one of the first jaw and the second jaw, and an actuating (14) structure connected to the operative mechanism for imparting a parallel opening movement to at least one of the first and second jaw (Fig. 1b) from a first position (Fig. 1g) to a second position (Fig. 1b when partially open) where the first jaw and the second jaw are spaced apart and parallel to one another, the actuating structure selectively imparting further scissors-like opening movements to at least one of the first jaw and the second jaw from the second position to a third position (Fig. 1b when fully open) where the first jaw and the second jaw are spaced apart a distance greater than that of the second position (compare Fig. 1b to Fig. 1g); creating an opening in the patients body (col. 4 ll. 56); positioning the first jaw and the second jaw in the first position (col. 3 ll. 59-65); passing the clamp head through the opening (col. 4 ll. 56); actuating the actuating structure to cause one of the first jaw and the second jaw to move to the third position (col. 3 ll. 59-65); positioning the first jaw and the second jaw such that the blood vessel is disposed between the first jaw and the second jaw (col. 4 ll. 5); actuating the actuating structure to cause one of the first jaw and the second jaw to move to the first position to clamp the blood vessel (col. 4 ll. 6, 7). The first (12) and second jaw (12) define a plane that is parallel (plane is

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the space between 15a and 15b) to the first and second jaw and located therebetween when the first and second jaws are in the first (Fig. 1g) and second (Fig. 1e) position.

The first and second jaws rotate (Fig. 1e and 1g) relative to the plane.

8.

9. Regarding claim 25 Marucci et al. discloses a method of occluding a body vessel comprising: actuating the actuating structure to cause one of the first jaw and the second jaw to move to the second position prior to clamping the blood vessel (col. 4 ll. 9-11).

10. Regarding claim 26 Marucci et al. discloses a method of occluding a body vessel wherein the opening is a small opening (col. 4 ll. 1,2).

11. Regarding claim 27 Marucci et al. discloses a method of occluding a body vessel wherein the opening is an intercostal opening (col. 4 ll. 57).

12. Regarding claim 28 Marucci et al. discloses a method of occluding a body vessel wherein the clamp head is passed through a trocar positioned within the opening (col. 20 ll. 45-49, biopsy needle).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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14. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marucci (U.S. Patent No. 6,582,451) as applied to claim 2 above, and further in view of Buckman et al. (U.S. Pub. No. 2005/0231183 A1).

15. Regarding claim 2 Marucci et al. discloses the claimed clamp wherein other of the first jaw and the second jaw is maintained in a fixed position relative to the clamp head during the opening movement between the first and second jaws (Marucci, col. 3, ll. 2,3). However, Marucci does not show the clamp with one of the first or second jaws remaining stationary when the other moves, however Buckman et al. shows the first jaw (Buckman, lower 12 in Fig. 8A) remaining stationary when the second jaw moves (upper 12, Fig. 8A).

16. This would have been obvious to one of ordinary skill in the art to have only one jaw move because this can provide more accuracy during surgery, because only one jaw is moving.

17. Claims 4, 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marucci (U.S. Patent No. 6,582,451) as applied to claim 3 above, and further in view of Prestel (U.S. Patent No. 5,968,074).

18. Marucci et al. discloses the claimed invention as discussed above and further discloses a clamp wherein the first and second jaws of the pair of jaws are simultaneously openable and closeable responsive to actuation of the operative mechanism (col. 2 ll. 67 and col. 3 ll. 1) (claim 6), and a clamp wherein the opening movement of the second jaw is provided by a guide pin (27a and 27b) slidably arranged

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in a link member of the linkage system (claim 7). Regarding claim 4 Marucci et al. discloses the claimed invention except it does not have the slot in the plate structure of the first jaw does not include an angled slot portion, whereby upon further actuations of the operative mechanism, the first guide pin is displaced into the angled slot portion causing the linkage arrangement to pivot the first jaw into a scissors-like wider opening between the jaws. However, Prestel teaches a clamp where the slot in the plate structure of the first jaw includes an angled slot portion (22 and 23), whereby upon further actuations of the operative mechanism, the first guide pin is displaced into the angled slot portion causing the linkage arrangement to pivot the first jaw from the second position to the third position (Figs. 1 and 3).

It would have been obvious to one of ordinary skill in the art to make the slot have an angle so the clamp can be more versatile, the angle can provide a use such as scissors that do not have jaws in parallel, instead they are angled which provide a wider opening between the jaws.

19. Regarding claim 8 Marucci et al. discloses a clamp wherein the first jaw (12) including a plate structure (14 that attaches to 26) having a vertically extending slot (27, vertical only depends on how the device is held, it is not an angle with respect to other parts of the clamp) and a guide pin (27a) at the upper end of the angled linkage member being slidable within the slot (18a) whereby upon actuation of the linkage member by the actuating structure the guide pin is displaced upwardly in the slot so as to initially open the first jaw in parallel relationship with the second jaw (Fig. 1b).

Marucci et al. does not disclose a clamp with an angled linkage member pivotably

attached to the proximal ends of the first and second elongate jaws, or the guide pin entering the upper angled slot portion further pivoting the second jaw in a scissors-like wider opening displacement. However Prestel teaches a clamp with an angled linkage member pivotably attached to the proximal ends of the first (1) and second elongate jaws (2);, and a guide pin (20) that enters the upper angled slot portion (22) further pivoting the second jaw in a scissors-like wider opening displacement (Fig. 1).

It would have been obvious to one of ordinary skill in the art to make the slot have an angle so the clamp can be more versatile, the angle can provide a use such as scissors that do not have jaws in parallel, instead they are angled which provide a wider opening between the jaws.

20. Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marucci et al. (U.S. Patent No. 6,582,451), and further in view of Prestel (U.S. Patent No. 5,968,074).

21. Marucci et al. discloses a clamp wherein the linkage mechanism comprises a plurality of closeable and openable parallel scissors links (24a, 24b, 25a, 25b) (claim 15), a clamp wherein the first and second jaws (24a, 24b, 25a, 25b) are simultaneously openable and closeable parallel scissors links (Fig. 1b) (claim 16), a clamp wherein the opening movement of the second jaw is provided by a guide pin (27b) slidably arranged in a link member of the linkage system (Fig. 1a) (claim 17), a clamp where in the actuator comprises a cable (14) (claim 18), a clamp wherein elastomeric cushioning

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means are provided on the facing surfaces of the first and second elongated jaws (col. 15 ll. 47-50) (claim 19).

22. Regarding claim 14 Marucci et al. discloses a clamp comprising a first jaw including a first slot (18a) extending along a first plane (space between 18a and 19c), a second jaw including a second slot (18b) extending along a second plane (space between 18b and 19d), the first and second jaws each being arranged such that the first and second planes are substantially parallel to each other (Fig. 1b), a linkage mechanism having at least a first pin (27a) for engagement in the first slot (18a) and at least a second pin (27b) for engagement in the second slot (18b), and an actuator (14) for displacing the linkage mechanism from a first position wherein the first pin (27a) and the second pin (27b) are positioned in the first (18a) and second (18b) slots in a substantially parallel configuration (Fig. 1b). Marucci et al. does not have one of the first and second slots having an angled slot portion extending along a third plane at an angle to the first and second planes, and one of the first pin and the second pin is positioned within the angled portion. However Preston teaches that one of the first and second slots (22 and 23) having an angled slot portion extending along a third plane (12) at an angle to the first and second planes and one of the first pin and the second pin is positioned within the angled portion (Fig.1).

It would have been obvious to one of ordinary skill in the art to make the slot have an angle and to include a third plate thus the clamp can be more versatile with the angled slot and the clamp will be more durable with the third plate.

23. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marucci (U.S. Patent No. 6,582,451) and Prestel (U.S. Patent No. 5,968,074) as applied to claim 14 above, further in view of Fogarty et al. (U.S. Patent No. 6,228,104).

Regarding claim 20 Marucci et al. discloses a clamp except it does not have elastomeric cushioning means comprise replaceable resilient pads mounted on the jaws, the pads formed of a fabric or plastic material. However, Fogarty et al. teaches a surgical clamp having replaceable pad (Fig. 7) formed out of a thermoplastic (col. 5 ll. 47).

It would have been obvious to one of ordinary skill in the art to have the pads be replaceable and create the pads with plastic. Having replaceable pads would extend the life of the clamp, it could also be used for different people. Plastic is a reasonable choice for the pad as it is biocompatible and durable.

24. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marucci (U.S. Patent No. 6,582,451) as applied to claim 1 above.

25. Regarding claim 12 Marucci et al. discloses a clamp but is silent regarding the length of the first and second jaw. It would have been obvious to one of ordinary skill in the art to make the operative length of each jaw about 65-75 mm, if this dimension would be appropriate for a specific vessel, it would be obvious to make the length of each jaw according to the different sizes of blood vessels.

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26. Regarding claim 13 Marucci et al. discloses a clamp but is silent regarding the spacing of the clamp when it is open. It would have been obvious to one of ordinary skill in the art to make the spacing 10-12 mm when in the first position, as this could help to position the clamp around the blood vessel, and to make the spacing be about 40 mm when in the third position as this could help to arrange the clamp before it needs to clamp down on the blood vessel, if these dimension would be appropriate for a specific vessel, it would be obvious to make spacing according to the different sizes of blood vessels.

Response to Arguments

Applicant's arguments filed 3/23/07 have been fully considered but they are not persuasive. The applicant generally argues the following:

- Marucci does not teach the distal end being spaced apart more than the proximal end.
- The combination of Marucci and Prestel is teaching away.

The examiner respectfully disagrees with the applicant, Marucci teaches every element as described in the independent claims, as explained above in Claim 1. Prestel is not teaching away, the combination of Marucci and Prestel would indeed be obvious as stated above. The applicant does not state that one jaw rotates relative to the other in the claims, as the applicant states in the second paragraph on page 9 of the arguments submitted 3/23/07.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(U.S. Patent No. 6,855,156) Etter et al. discloses a microsurgical instrument

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Ryckman whose telephone number is (571)-272-9969. The examiner can normally be reached on Monday thru Friday 7:30-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hayes can be reached on (571)-272-4959. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MKR


(JACKIE) TAN-UYEN HO
SUPERVISORY PATENT EXAMINER
7/9/07